TIMOTHY FOREMAN
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Academic Positions

Research Scholar, Equity and Justice Research Group,
International Institute for Applied Systems Analysis (IIASA), 7/2023 – present
Research Associate, Qatar Centre for Global Banking and Finance,
King's College London, 2/2021 – 6/2023
Climate Change Graz Post Doc Fellow, Wegener Center for Climate and Global Change,
University of Graz, 11/2022 – 2/2023
Affiliated Scientist, RFF-CMCC European Institute on Economics and the Environment, 1/2021–1/2023
Postdoc, RFF-CMCC European Institute on Economics and the Environment, Milan, 6/2019–12/2020
Adjunct Professor, IE University, Madrid, 9/2019–5/2021

Graduate Studies

Columbia University
Ph.D. Sustainable Development, 2019
Thesis Title: "Essays on the Economics of Environmental Change"
M.Phil Sustainable Development, 2017
M.A. Sustainable Development, 2017

Undergraduate Studies

BS Applied Mathematics, Columbia University, *Magna cum laude*, 2013

Research and Teaching Fields

Environmental Economics, Climate Finance, Sustainable Development

Teaching Experience

Spring 2021	Thesis Advisor, International Relations, IE University
Fall 2019	Mathematics for Economists, IE University, Instructor (inaugural year of the Bachelor in Economics)
Spring 2017	Political Development in the Developing World, Columbia University, Teaching fellow for Professor Christopher Sabatini
Fall 2016	Research Methods and Quantitative Techniques in Public Management and Policy, Columbia University, Teaching fellow for Professor Selcuk Eren
Spring 2016	Microeconomics Policy and Analysis, Columbia University, Teaching fellow for Professor Selcuk Eren
Fall 2015	Intermediate Microeconomics, Columbia University, Teaching fellow for Professor Prajit Dutta
Spring 2015	Microeconomics Policy and Analysis, Columbia University, Teaching fellow for Professor Kitty Chan
Fall 2014	Microeconomics Policy and Analysis, Columbia University, Teaching fellow for Professor Suresh Naidu

Professional Activities

Referee	Journal of Environmental Economics and Management; Environment and Development Economics; Management Science; Demography; Atmospheric Environment; PLOS One; Middle East Development Journal

Presentations	2023: Mannheim Conference on Energy and the Environment; 2022: Environmental Protection and Sustainability Forum, Graz, Austria; AERE Summer conference; Mannheim Conference on Energy and the Environment; Sustainable Development Research Symposium, New York, NY; 2021: UCLA Luskin Center for Innovation Climate Adaptation Symposium; LSE and Imperial College Workshop in Environmental Economics; EARE Annual Conference; V Workshop on Migration, Health and Wellbeing; 2020: EAERE Annual Conference; IAERE Conference, Brescia, Italy; 2019: Aarhus University, Department of Economics and Business Economics, Aarhus, Denmark; Sustainable Development Research Symposium, New York, NY; 2018: Wegener Center for Climate and Global Change, Graz, Austria; Austrian Economic Association (NOeG) Winter Workshop, Vienna, Austria; International Conference on Sustainable Development, New York, NY; International Workshop on Sand/Dust Storms and Associated Dustfall, Tenerife, Spain; Eastern Economic Association, Boston, MA
Co-organizer	2022: QCGBF Annual Conference; King's College CEGF Workshop; King's Climate Finance Workshop; 2021: Climate Finance Panel, International Finance and Banking Society, Oxford University; King's College Climate Energy Governance & Finance Workshop (CEGF); 2016: Interdisciplinary PhD Workshop in Sustainable Development, Columbia University
Panelist	2021: Global Circular Challenge (London School of Economics)

Fellowships & Grants

2022	King's Business School Faculty Innovation Fund Grant (£20,000)
2018 - 2019	Dissertation Fellowship, Columbia University
2013 - 2018	Dean's Fellowship, Columbia University

Publications

"Climate Change, International Migration, and Interstate Conflict", Cattaneo, C. and **Foreman, T.** Ecological Economics. 2023.

Working Papers

"*The Effects of Dust Storms on Economic Development*"

Dust storms are a common occurrence for populations residing in semi-arid environments and can result in a variety of immediate and long-term impacts. While previous literature documents many of these short-term effects, such as increases in various respiratory issues (e.g. asthma attacks, suffocation) and increases in traffic accidents (resulting from disrupted transportation networks), this is the first study to use exogenous variation in dust exposure due to long-range transport to study the effects of dust storms on economic activity. I instrument local dust values using dust observed over the Bodélé Depression of the Sahara Desert, the largest dust source in the world. I show that economic growth in West Africa is reduced by 3% per standard deviation increase in dust exposure over 2 years. Agricultural yields decline in the year of impact on average by 2%. The effects found here could be a contributing factor to reduced economic development in West Africa and suggest that dust storms should be considered an important part of geographic endowments alongside other climate indicators.

"*The Effect of Dust Storms on Child Mortality*" CDEP-CGEG Working Paper.

While the health impacts of dust have been studied in high-income countries, little is known about the health effects of dust storms in the regions of the world most exposed. In this paper, I study the effects of dust storms on child mortality using reanalysis data on surface-level dust concentrations and household health data from the Demographic and Health Surveys. I use dust observed over the Bodélé Depression in the Sahara Desert - the world's largest dust source - as well as wind speed and direction to estimate the quantity of natural dust exposure. I then use this transported dust to instrument for the dust over the location where the child is born, thus overcoming potential endogenous increases in dust exposure due to

economic conditions. I find that a one standard deviation increase in dust exposure at month of birth decreases the probability a child survives to age 5 by .33 percentage points. This estimate implies that about 10% of all child mortality observed in the sample can be attributed to dust exposure.

"Environmental Shocks and the Decision to Migrate."

"Labor Disutility in a Warmer World: The Impact of Climate Change on the Global Workforce." Climate Impact Lab Working Paper, with Baker, R., Carleton, T., D'Agostino, A., Delgado, M., Gergel, D., Greenstone, M., Houser, T., Hsiang, S., Hultgren, A., Jina, A., Kopp, R., Malevich, S., McCusker, K., Nath, I., Pecenco, M., Rising, J., Rode, A., Rising, J., and Yuan, J

Other Published Works

Sachs, J., Rising, J., **Foreman, T.**, Simmons, J., and Brahm, M. 2015. "The Impacts of Climate Change on Coffee: Trouble Brewing" http://eicoffee.net/

Raymond, C., **Foreman, T.**, King, A., Kornhuber, K., Lesk, C., Mora, C., Perkins-Kirkpatrick, S., Russo, S., and Vijverberg, S. 2018. "Projections and hazards of future extreme heat." In *Planning for Climate Change Hazards*. Oxford University Press. https://dx.doi.org/10.1093/oxfordhb/9780190455811.013.59

Work in Progress

Foreman, T., Varela, A, and Wong, J. "Inland Flooding: Estimating Damages and Protection from Insurance"

Aikman, D., **Foreman, T.,** and Kuralbayeva, K. "Do climate-related disclosure statements accurately represent exposure to climate risks and commitment to climate mitigation policies? Evidence from SEC filings."

Aikman, D., Chalmers, A., Foreman, T., Klingler-Vidra, R., and Kuralbayeva, K. "Sustainable Finance: what is it, and how is it regulated?" (see coverage at Global Policy)

Foreman, T. "Predicting Areas of Agricultural Expansion."

Languages

English (native)
German (advanced - C1)
French (basic - A2)
Spanish (basic – A1)

References

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